

# APPENDIX II

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## APPENDIX II

### BACKGROUND INFORMATION

#### A. General

1. **Native Region:** Cook Inlet Region, Inc.
2. **USGS map coverage:** Tyonek C1, D1, Anchorage C7, C8, D7, D8
3. **Title/Land Status:**
  - a. The Deception Creek Management Unit contains 65,698.68 acres of patented state land. Of that, 720 acres are Mental Health lands. The Mental Health lands are located in T18N, R3W, S.M., Sec. 05 S½SE¼; Sec. 07 S½, S½N½; Sec. 08 N½NE¼; Sec. 23 NW¼NE¼, NE¼NW¼. The remainder are general grant lands, except for one section of school grant lands.
  - b. **Actions of record (issued):** See Willow State Capital Site status check regarding third-party interests (in file for Mineral Closing Order #250).
  - c. **Previous Classification:** Reserved Use  
**Number:** 329 AM #5 and #7, and  
747 AM #4; 1000 and 1002.  
Classified Reserved Use in 1976 to protect it for potential use as a capital city.
  - d. **Mineral Status:** closed to new locatable mineral entry by Mineral Closing Order #250 in 1982, based on Land Planning Report (LPR) 959 AM 1.
  - e. **Management Agreements:** None.
  - f. **Land survey:** The subject area is not completely surveyed. Federal survey exists for T19N, R3W. Partial Federal survey exists on T19N, R23 and 3W.

#### B. Natural Resources on State land

1. **Topography:** Flat to choppy with various aspects and slopes combined with gently rolling hills, meadows, spruce and birch forests, and muskeg and bogs.
  - a. **Elevation:** from 300' to 3137'
  - b. **Aspect/Slope:** Largely west and south facing slopes
  - c. **Landform:** foothills of the Talkeetnas
  - d. **Natural Hazards:** Minimal

2. **Soils:**

**Type:** All soils information is based on the SCS classification system in use in 1981. That system has since been revised. There are scattered parcels of what in 1981 were considered Class II and III soils. Some of these soils may be redefined as Class IV. The largest concentration of these soils is along the lower stretches of Deception Creek, a little less than a section, mostly in section 18, T19N, R3W, S.M. However, about one half of this is in private ownership. There are also scattered blocks of Class IV soils, mostly north of Deception Creek. The majority of the area consists of non-agricultural soils.

3. **Water:**

- a. **Groundwater:** Deep well water potential from wells drilled in the broad drainage channel of Deception Creek.
- b. **Surface:** Potential for diversion from Willow Creek to storage lakes above Capital Site core development area.
- c. **Current usage:** None
- d. **Public and Navigable:** Willow Creek.

4. **Minerals:**

- a. **Gold and precious metals:** The entire management unit is part of the old Willow Creek Mining District. The geology of the eastern portion (the higher elevations) is similar to that of the Hatcher Pass unit; therefore, one could expect to find minerals (gold) similar to what has been found at Independence and Gold Cord. There is placer gold in Willow Creek. In general, it can be said that the foothills have moderate potential for precious metals.
- b. **Oil, Gas, and Coal:** Potential coal, oil, and gas on the western edge of the area. At one time, there was an open pit coal mine at Houston, just outside the southwest boundary of the unit. North and west boundaries contain several expired coal prospecting permits.

5. **Forest resources:**

An estimated volume of 10,023,280 cubic feet of birch, aspen, and cottonwood, and 4,741,530 cubic feet of spruce exist in the site. The best timber is within the southern portion of the site. The commercial-quality timber covers approximately 17,230 acres and is capable of producing about 1,200 cords of fuelwood and 156.8 thousand board feet of sawtimber annually.

- 6. **Grazing:** The following information explains the map of Areas with Grazing Potential. This information was provided by the U.S. Soil Conservation Service based on interpretation of aerial photography. No ground truthing was done, but range inventory

data has been collected in the adjacent Hatcher Pass planning area. This management unit is more heavily forested than the adjacent Hillside subunit. It also has extensive muskeg areas; local people report that access is difficult to areas with grazing potential.

- a. Some areas located in the western and central portion of the management unit are primarily closed forest and muskeg; south of Willow Creek are numerous morainal hills with open birch and birch-spruce forest. Grazing potential in closed forest and muskeg is generally low. In areas of open forest with bluejoint reedgrass understory, potential is moderate to high; however, these stands are usually surrounded by muskeg and are inaccessible.
- b. The areas shown as having moderate grazing potential on the Grazing map are primarily open forest and woodland with either alder, willow, or bluejoint reedgrass-common fireweed dominated understories. Grazing potential of this area as a whole is estimated to be moderate, depending on the actual composition of the various understory types. Stands dominated by bluejoint reedgrass produce high quantities of forage.
- c. The areas shown as high potential are subalpine zone; the vegetation is a mosaic of grassland and willow (occasionally alder or mixed willow-alder) scrub. Grazing potential of these areas as a whole is estimated to be high; however, from the photography it appears that willow scrub is more abundant in the Deception Creek Management Unit than in similar areas north of Willow Creek.
- d. The extreme eastern portion of the site is true alpine zone; the vegetation here is a mosaic of low growing alpine types with grassland on areas of deeper soils. Grazing potential of this area is estimated to be moderate for cattle and moderate to high for sheep.

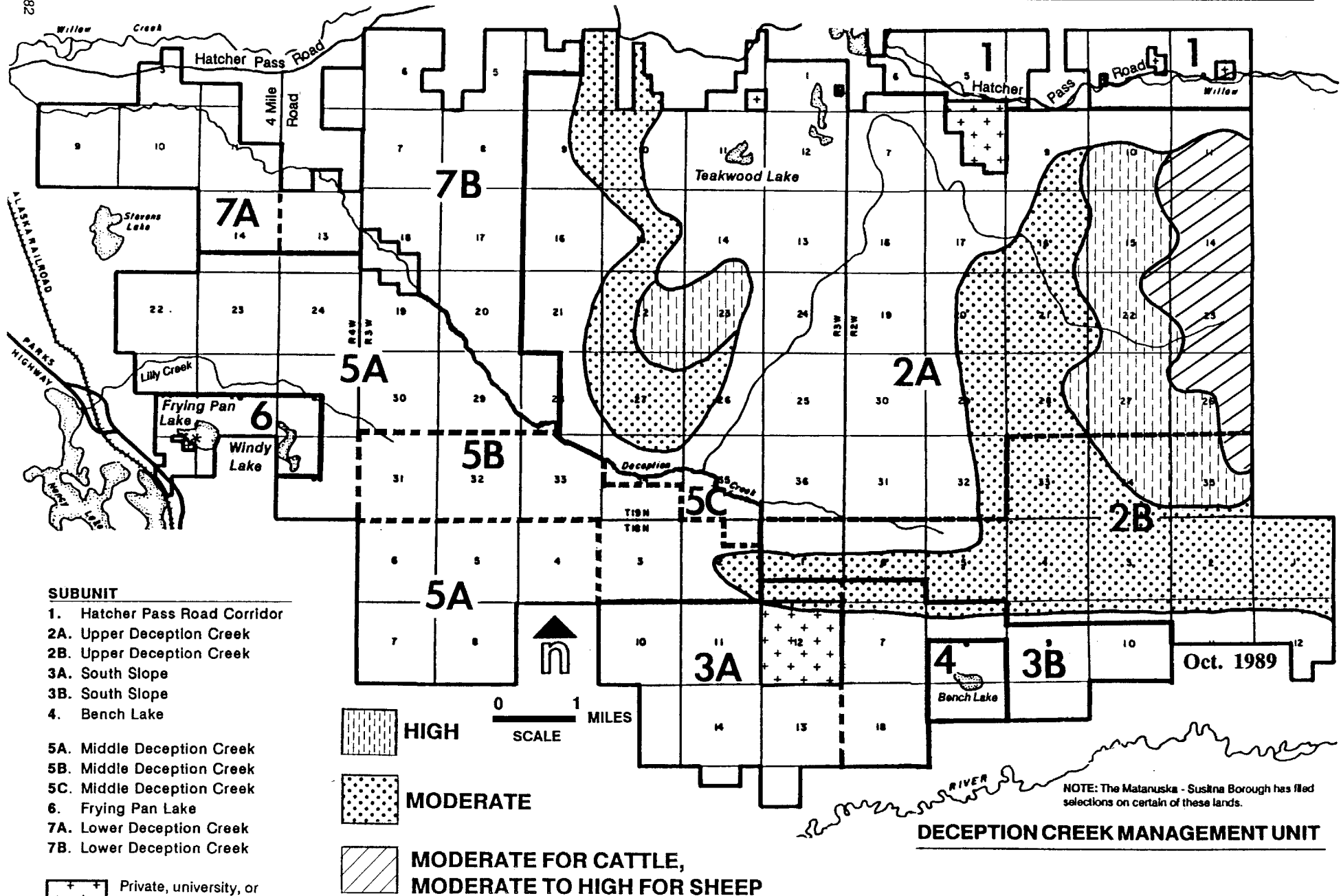
7. **Materials:**

**Sand and Gravel:** Surficial deposits mainly along Deception Creek, Willow Creek, and Lilly Creek.

8. **Wildlife (populations and habitat):**

- a. **Big game:** One of the six most important moose population (production and harvest) areas in the lower Susitna Basin is located within the Deception Creek management unit. Extensive breeding, calving, and summer and winter foraging activities occur here. The most important habitat and harvest areas are on the slopes of Bald Mountain located north and east of Deception Creek and along a 3.5 mile-wide corridor overlapping Bullion Mountain and extending north to the management unit boundary. The unit also contains important brown and black bear habitat.

# AREAS WITH GRAZING POTENTIAL



NOTE: The Matanuska - Susitna Borough has filed selections on certain of these lands.

(Based on interpretation of aerial photography with no ground truthing; does not consider access problems or conflicts with wildlife.)

- b. **Sport hunting and trapping use:** Moose, bear, grouse, ptarmigan, and fur bearing animals.
- c. **Waterfowl:** Ducks and geese.
- d. **Raptors:** Eagles, Hawks, Falcons, Owls.
- e. **Subsistence use:** None.
- f. **Importance:** The value and magnitude of the fish and wildlife resources within this area are well known. It has a great diversity of wildlife species, a high density of moose, and is accessible to a large population center (Anchorage). The importance of this area for moose was recognized by the territorial game commission and the Department of Fish and Game as early as 1955. Since then, with few exceptions, the Department of Fish and Game has conducted aerial surveys of moose populations every year.

In 1986, the Department of Fish and Game conducted a moose census in game management subunit 14A which includes the Deception Creek Management Unit. From this effort it was determined that the Bench Lake area and the area along the marked sled trail from Houston into the Deception Creek Basin were more important as moose winter range than previously considered (Personal Communication Nick Steen).

Aerial survey, research, and harvest information clearly identifies much of the Deception Creek Management Unit as important annual and seasonal habitats of a large resident moose subpopulation, and of several other subpopulations of moose located adjacent to the site in the Lower Susitna River Basin and Matanuska Valley.

The Department of Fish and Game information indicates that the Deception Creek Management Unit lands are also important to moose subpopulations from the Talachulitna, Deshka, and Yentna river areas. Moose from these areas have migrated through the Deception Creek Management Unit lands to winter ranges near Houston and Pittman and along the floodplains of Willow Creek and the Little Susitna River. Other data suggest that several hundred moose from subpopulations on Willow Mountain and Moss Mountain (5-15 miles north of the Deception Creek Management Unit) migrate south onto and across the Deception Creek Management Unit to winter along the Little Susitna River and near Pittman and Wasilla.

The Department of Fish and Game data indicate that after winter, female moose move to particular areas and habitats for parturition. In the Deception Creek Management Unit, the Department of Fish and Game has recorded substantial numbers of moose in mid-elevation forested habitats (between the timberline ecotone zone used during post-rut and the lowland riparian areas used during winter) from mid-May to mid-July during calving. Particularly large numbers of moose occurred on west and south facing mid-elevation slopes from Bullion Mountain near Deception Creek east toward Bald Mountain. At this same time, black bears were commonly

observed utilizing the same zone of habitat. Use of forested habitat is thought to provide moose with a protective (ecological) separation from brown bears and with concealment from black bears.

In July, moose of both sexes start to reappear near and above the timberline ecotone habitats. Moose from different subpopulations that have either come to or crossed the Deception Creek Management Unit from other areas may stay in unoccupied habitats, vacated by natural mortality or previous season's harvest, until the breeding season which begins in early September. By this time, most of the moose have achieved a major portion of their body weight gain for the year in preparation for breeding (rutting) and winter.

The Department of Fish and Game data indicate that a large movement of animals occurs from alpine and other locations to lower mid-elevation densely timbered forest habitats in preparation for the breeding season. The data indicates that moose breeding activities take place in a fairly extensive portion of the Deception Creek Management Unit. Moose spend the rut in the area encompassed by timberline on the east to the 700-foot contour elevation and to Bullion Mountain near Deception Creek on the west, to Twelvemile Lake on the north, and to and including the area around Bench Lake on the south. The Department of Fish and Game data indicates that moose remain in these mid-elevation (approximately 700-1900 feet) timbered habitats through the rut until October when many of them return to the higher elevations at and above timberline.

The Department of Fish and Game's research activities have identified the following five dominant habitat zones (ranges) that occur in the Deception Creek Management Unit and are utilized extensively by moose seasonally:

(1) Post-rut forage range--located at and above the timberline ecotone and utilized from mid-October through December;

(2) Winter range--located in lowland areas near human settlements, highways and the railroad, and along the floodplains of Willow Creek, the Little Susitna River, and Deception Creek and utilized from December through April; during mild winters habitats located between 1200-2800 feet in elevation on Bullion Ridge and Bald Mountain are used as winter range; during heavy snow fall years, winter range is located in lowland areas near human settlements.

(3) Calving range--located in mid-elevation forested habitats primarily on south facing slopes between Bullion Mountain and Bald Mountain and utilized from mid-May through June;

(4) Summer range--located from mid-elevation forested habitat through alpine habitat and utilized from July through August; and

(5) Breeding (Rut) range--located in forested habitat from mid-elevations to timberline and utilized from September through mid-October. A moose travel corridor which traverses the Deception Creek Basin from Willow Mountain to the Little Susitna River (between Houston and the Schrock Road bridge) has been identified.

9. **Fisheries (populations and habitat):** Salmon, trout, whitefish, burbot, Dolly Varden, grayling. Anadromous streams are: Deception Creek, Lilly Creek, the outlet of Bench Lake, and the eastern stream in section 16, T18N, R2W, S.M.

10. **Recreation:** Key recreation resources identified in both the 1978 capital site development plan and the Willow Subbasin Plan are Bullion Mountain Scenic Area (T19N, R3W section 23), Twelve Mile Lake (about two sections south of the Hatcher Pass Road), and Willow Creek Island (less than a section along Willow Creek). Two others (Willow Plan) are the Susitna Scenic Area (extreme eastern edge) and Four Lakes (within the core area). The 1978 capital site development plan also shows a potential ski area in the northeast corner. In addition, there are several trails. (See discussion in individual subunits.)

C. **Land Use/Economic conditions:**

1. **Improvements/Facilities:** None presently exist except for a transmission line from the Teeland Substation on Knik Road to the Hatcher Pass Road (north of the Hatcher Pass Road this line becomes the Anchorage-Fairbanks intertie).

See map of Capital Site 1982 General Development Plan for location of proposed development for the capital city.

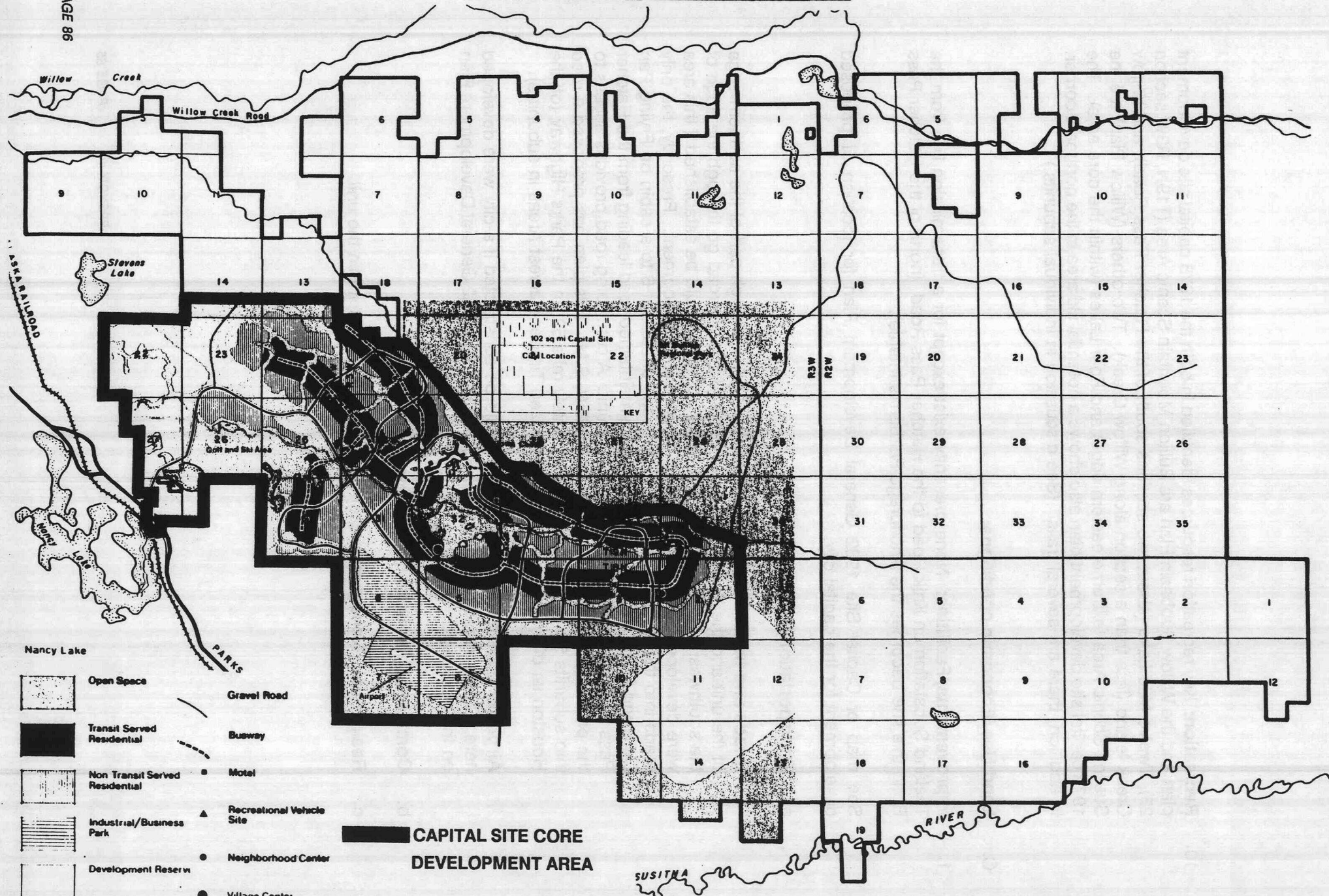
a. **Transportation/Access:**

**Roads and trails:** The Hatcher Pass Road goes through part of the northern edge of the unit and the Parks Highway and the Alaska Railroad go through the edge of the southwest corner. A link to the Parks Highway would be established if this area were developed for a capital city or other major development. Presently, the only roads into the area are a road into the edge of subunit 6 to a cabin on Frying Pan Lake and Four Mile Road. This is a state-maintained road leading from the Hatcher Pass Road to the northwest edge of the unit. A continuing road provides access to the private parcel in section 18, T19N, R3W, S.M. This plan has proposed a road into subunits 5A and 5B from approximately mile 59 on the Parks Highway (off the Houston landfill road; see map of Proposed Timber Harvest Areas in subunit 5).

**Airports/landing areas:** An airport would be constructed if a city were developed here. See proposed airport location on Capital Site 1982 General Development Plan on the next page.

- b. **Commercial/Industrial:** None exist at present.
- c. **Residential:** None exist presently on the state lands within the unit.

# DECEPTION CREEK MANAGEMENT UNIT



## CAPITAL SITE 1982 GENERAL PLAN

2. **Non-Fish/Game Subsistence Resources:**

**Vegetative:** Most of the unit below 1,500 feet has white and black spruce and birch interspersed with pockets of typical bog vegetation such as sedges, blueberry and willow. The forests below 1,000 feet are typically better commercial quality. As the elevation increases on Bald Mountain Ridge, the trees give way first to grass scrublands, then subalpine (willow, alder, grassland, crowberry-blueberry hummocks) and finally, above 2,800 feet to alpine vegetation.

3. **Unauthorized Use:** At least five and possibly 25-30 cabins built and used by people using the area for recreation, e.g., snowmachiners. Cabins are not lived in permanently.

4. **Local government zoning/Use designations:** The management unit lies within the Matanuska-Susitna Borough. Most of it is not zoned. However, slightly less than one section at the southern edge of the unit is within the boundaries of the city of Houston and is zoned Public Lands and Institutions. (E½ Sec. 13, NE¼NW¼ and NW¼NE¼ Sec. 23, and NW¼ Sec. 24, T18N, R3W, S.M.)

5. **Services (existing):**

a. **Road service:** None except as described above.

b. **Communications/electricity:** Electricity exists on Hatcher Pass Road, portions of which are inside the management unit. A transmission line runs through the western edge of the management unit.

c. **Other utilities:** None

6. **Adjacent land uses:**

a. **Present:** The Willow Sub-Basin Area Plan completely encompasses the Deception Creek Management Unit. Within the Willow Sub-Basin Area Plan, the Hatcher Pass Management Plan abuts the northeast and eastern boundaries of the Deception Creek Management Unit; the legislatively designated Nancy Lakes Recreation Area and the community of Houston are adjacent on the southwest; the community of Willow is on the west; the Willow Creek Corridor is on the north; and the Little Susitna River runs just outside the southeastern portion of the site.

The Hatcher Pass management unit land uses include mining, recreation, fish and wildlife, and grazing. A ski resort is proposed on the eastern side of this unit. The Houston and Willow land uses primarily include community land needs and the George Parks Highway scenic areas. The Willow Creek Corridor land uses include fish and wildlife, small farms, settlement, and recreation. The Little Susitna River and its tributaries in and along the southeastern portion of the unit are important salmon spawning streams. The Little Susitna River Corridor is important wildlife habitat and provides important recreation opportunities to people throughout the state.

b. **Projected future uses:**

- (1) The **Willow Mountain Subunit** (Hatcher Pass Management Unit) adjacent to the northern boundary of the unit is primarily managed to maintain its wildlife resources and hunting opportunities as well as other types of dispersed recreation. It is open to mining, but has low mineral potential. Forestry is not a planned use. No commercial recreation facilities or settlement is allowed. The western portion of this subunit has been established as the Willow Mountain Critical Habitat Area.
  - (2) The **Lucky Shot Ridge/Baldy North Subunit** (Hatcher Pass Management Unit) to the east of the Deception Creek Management Unit is to be managed for a number of values. The road corridor is to be managed for its scenic value and for recreational access. Bald Mountain Ridge is to be managed for dispersed recreation and wildlife values. The area is open to mining which may occur in the future on Willow Creek, but is less likely on the ridge. No land sales are allowed.
  - (3) The **Hillside Subunit** (Hatcher Pass Management Unit) located in the southwestern corner of the Hatcher Pass Management Plan and adjacent to the eastern boundary of the Deception Creek Management Unit has steep, southerly slopes on Bald Mountain Ridge and is to be managed for scenic, recreational and habitat value. Below 1000 feet, commercial timber harvest and water resources protection is a management intent. High potential for grazing exists in section 6 and commercial lodges are allowed in section 7. A planned snowmachine trail and/or dog trails could eventually be routed from Hillside to the Willow Creek area via this management unit.
  - (4) **Nancy Lakes Recreation Area** The State Division of Parks and Outdoor Recreation has updated a master plan for the area which designates zones that permit varying levels of recreational development and intensity of use. It also designates specific areas for trail and facility development.
7. **Local economic conditions:** The area is currently subject to the statewide depression resulting from low oil prices.